CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

According to Nunan (1992: 211), 'research is a systematic process of enquiry consisting of three elements : a question, data, analysis and interpretation of data'. The first chapter has proposed three research questions, and this chapter will discuss the second element, i.e., the data. Analysis and interpretation of data will be provided in Chapter Four.

This study seeks to evaluate the effectiveness of the A104 Commercial English 1 course, the suitability of the course for the students, and to obtain suggestions for improvement from the students and teachers. This chapter will describe the process of obtaining the necessary data through questionnaires and interviews. It will be divided into several sections: the conceptual framework of this study will make up the first section; the second will present the evaluation criteria of this study; the third will discuss the subjects involved in this research; the next two sections will focus on the development of research instruments and the administration of instruments; the data collection procedures and data analysis will be discussed after that. The chapter will conclude with a short summary.

3.2 The Conceptual Framework

The conceptual framework of this study is constructed by the researcher based on careful analysis of the evaluation models discussed by Patton (1981, 1982), Mackay et al (1995), and Brown (1989). In addition, this framework also takes into consideration the 'Wh' questions discussed by Alderson and Waters (1983), Hutchinson and Waters (1987), and Robinson (1991).

Figure 1 shows the conceptual framework of this study. There are six important elements: area of study, objectives of study, samples selected, procedures used, data analysis, and finally the product. Each element will answer a specific 'Wh' question. Area of study answers the question of 'What should be evaluated?'; objectives of study answers the question of 'Why carry out an evaluation?'; samples selected answers the question of 'Who are the subjects of study?'; procedures used answers the question of 'Which instruments are used?'; data analysis answers the question of 'How to analyse the information gathered?'; and finally the product will answer the question of 'What should be done next?'.

AREA (What)	A104 Commercial English 1 course
OBJECTIVES (Why)	1) To seek views about the CE 1 course 2) To see the suitability of the course for the students 3) To recommend improvements to the course
SAMPLES (Who)	Students and teachers
PROCEDURES (Which)	Questionnaires and interviews
ANALYSIS (How)	Frequency counts Percentages Descriptive interpretations
PRODUCT (What next)	Modification of the course

EVALUATION

Figure 1 : The conceptual framework of this study

As shown in Figure 1, the six elements are connected by arrows pointing linearly from the top to the bottom, that is, from AREA to PRODUCT. The whole framework is connected by the arrow at the bottom (after the PRODUCT) pointing to the ongoing process of evaluation on the far right. The arrow from EVALUATION to AREA (top left) shows that the process is in a complete cycle.

This simple framework shows that the six steps (elements) are arranged in such a way that each step should be followed from the top to the bottom as shown by the arrows pointing down. They are connected by the arrow pointing to the EVALUATION process to show that the whole process can start all over again if necessary.

To illustrate how this framework works, let us look at this study as an example (see Figure 1). Firstly, it has been decided that an ESP course evaluation is to be carried out. This decision will bring us to the first step or element, that is, what is the area of study we intend to investigate? Is it the whole of an ESP course? Or is it just one part of a course such as the syllabus, or the materials only? For this study, the whole Commercial English 1 (CE 1) course is being evaluated.

Next, we need to ask ourselves why are we carrying out this evaluation exercise? This will bring us to the second step or element, that is, the objectives of study. In this study, there are three objectives. One, to study the perceptions of the students and the teachers regarding the CE 1 course. Two, to see the suitability of the course for the students. Three, to recommend improvements to the course.

Having decided on the area and objectives of study, we now have to decide who our samples should be. Normally the subjects of study will consist of people directly involved in a study. We can also include others who are considered important to the study. For this particular study, the samples will include first year commerce students and English teachers in a particular polytechnic in Malaysia since this study is carried out in that polytechnic.

After this, we need to select the appropriate procedures to carry out the research. This will bring us to the fourth step or element, that is, which procedures should be used? Should we use questionnaires only? Or should we use interviews or both? The selection of procedures will depend on the needs of each evaluator and the situation. In the case of this study, both the questionnaires and interviews will be used to gather information.

The fifth step or element will be data analysis. Here, we have to decide on how to analyse the data collected through the instruments mentioned above. Normally, data collected can be analyzed qualitatively and quantitatively depending on the types of data gathered. For this study, data collected through questionnaires will be analyzed using frequency counts and converted into percentages, while data collected through interviews will be analyzed by way of descriptive interpretations.

The final step or element is the product of study. This will answer the question of what should be done next. With a formative evaluation, we can expect a modification of the existing course to improve its effectiveness. With a summative evaluation, there should be a design of a new course based on the results of the evaluation. Since this present study is formative in nature, it is the aim of this research to give some feedback to improve the quality of the course.

The brief illustration above shows that this framework is applicable to other ESP course evaluations, in and beyond the Malaysian context. Even the course under study can be evaluated in future by using the same framework when the need arises, perhaps in a broader scope of study by expanding the samples and procedures used. In sum, the ongoing evaluation process in this framework is the thread that holds all the elements together and gives meaning to all of them. In other words, the working of the six elements is dependent on the evaluation process, the heart of the framework.

3.3 Evaluation Criteria of the Study

To evaluate an ESP course effectively, we need to have certain criteria which we can fall back upon. In this present study, for example, ten criteria have been decided upon so as to make the evaluation process as consistent as possible. These are: students' needs, course objectives, syllabus and curriculum, materials used, teachers and teaching methods, time allocation, evaluation system, problems faced, overall perceptions about the course, and overall evaluation results.

3.3.1 Students' Needs

As mentioned earlier, needs analysis is an important feature of ESP course development. It is carried out to determine the needs of the students before an ESP course is drawn up. It was mentioned earlier that prior to the introduction of the new Commercial English courses in polytechnics in 1995, a needs analysis was conducted in 1994 and it was found that while all the four basic skills were important for the students, the need for speaking skills was dominant (Technical Education Department, 1994). This study intends to find out if this still holds true today (in 2000).

3.3.2 Course Objectives

In an EAP programme such as the Commercial English 1 which is being evaluated, the course objectives should be clearly stated. Having a set of clearly outlined objectives suggests that course designers are aware that the learners need to understand what they are expected to do. Knowing the objectives of the course will enable the learners to follow the course to achieve their goals. Hence, this study is interested to find out if the respondents know and understand the objectives well and whether they share the same views with regard to what they want from the course.

3.3.3 Syllabus / Curriculum

The syllabus content of the course is evaluated to see if the course helps the students to develop reading, listening, speaking, and writing proficiency, and whether it provides enough skills practice which are relevant to students' present course of study and future job prospects. Comments about the ECP skills and the topics in the course will also be sought. In addition, the respondents will be asked to comment about the present English curriculum and make recommendation for improvement, if any.

3.3.4 Materials Used

As mentioned earlier, the types of materials used in an ESP course will determine the backbone of the course. This study attempts to find out if the materials used in this course are appropriate in relation to the needs of the students and the course objectives.

3.3.5 Teachers and Teaching Methods

There is no doubt that teachers play an important role in an ESP class. They should use a variety of instructional activities that address individual differences in learning. Adult learners need motivation from their teachers to build up their confidence. This study attempts to discover how the students feel about their teachers and their teaching methods.

3.3.6 Evaluation System

It is normal for any ESP course to have an evaluation system which will gauge the achievement of the learners. The Commercial English 1 course is no exception. This study intends to find out if the respondents understand how the evaluation system works and whether they are satisfied with the present system.

3.3.7 Time Allocation

The total time allocated for a specific ESP course is usually fixed in Malaysian polytechnics. For example, the total time allocated for the course under study is 72 periods (45 minutes a period) for the whole semester. This study is interested to know whether the respondents feel that the time allocated is adequate for the purpose of teaching / learning the necessary skills.

3.3.8 Problems Faced

It is quite common that in any ESP course, problems exist in the process of teaching and learning in class. These problems will remain there if no action is taken to overcome them. As such, this study will highlight some of the major problems faced by both the students and the teachers in the teaching and learning of the course under study.

3.3.9 Overall Perceptions about the Course

In carrying out an evaluation, it will be useful to look at the course holistically, and not just at its various aspects individually. This study, therefore, will ask for views regarding the Commercial English 1 course as a whole, including views about the entry point (proficiency level of students based on SPM English results). This is important as it will determine whether the continued existence of this course is justified.

3.3.10 Overall Evaluation Results Obtained by Students

Test or evaluation results obtained by students in any EAP course are to a certain extent useful indicators of the effectiveness of the course. In this study, this is the last area of interest where the overall evaluation results (coursework and examination) of students taking this course will be analyzed and compared. The purpose of comparing the results obtained by the two groups of students (CBS and DBS students in this study) is to find out whether there is any significant difference in performance between them, so that recommendations can be made to standardise the English entrance requirement into polytechnics for students at certificate and diploma levels.

3.4 The Subjects of Study

The subjects of this research are two groups of first year second semester students from the Commerce Department and the English language teachers from the General Studies Department. More details about them will be provided under two separate headings discussed below.

3.4.1 The Student Sample (SS)

The student sample is made up of all first year second semester Certificate in Business Studies (CBS) students and all first year second semester Diploma in Business Studies (DBS) students at PUO (they entered PUO in July 1999). Out of the total number of students, 41 are CBS students and 26 are DBS students. These students are selected for the following reasons:

1. At the time of doing this research at PUO, all the courses in the Commerce Department were offered at diploma level except the Business Studies courses which were offered at certificate and diploma levels. Since the subjects needed for this study should comprise first year students with the same majors from both certificate and diploma levels, all the CBS and DBS students (July 1999 batches) were recruited as the student sample.

2. Both groups of students had just completed taking the course under study in the last semester. They are expected to be familiar with the course content and should have no problem in understanding most or all the items asked in the questionnaires and interviews. They are thus in a good position to give their opinions regarding the course under study. Their views will shed light on whether the course has successfully catered to their needs.

3. The number of students involved in this study will be too big to handle if all the first year second semester students were included. Due to manpower and financial constraints, it is beyond the ability of the researcher to include all of them in this study.

3.4.2 The Teacher Sample (TS)

The teacher sample was not as complicated as the student sample. This sample is made up of seven ESP teachers who are either currently teaching the course under study or have experience in teaching this course previously. Eight other teachers who are not teaching this course and have no experience at all are not included in the sample.

Since the teacher sample is made up of those who have experience in teaching the course under study, they are expected to be familiar with the course content and should be able to understand all the items asked in the questionnaires and interviews. And since they are directly involved in the teaching and learning process, they should be in the best position to voice their opinions regarding the course so that further modifications can be made to improve its quality.

3.5 Research Instruments

Questionnaires and interviews are two of the most common and effective descriptive methods used nowadays. Good accounts of these two research instruments can be seen in Cochran (1977), Beed and Stimpson (1985), Krueger

(1988), Oppenheim (1992), and Bryman (1995). The questionnaire is an effective research tool for receiving information collectively from the respondents. To yield better results, Kaur (1997) suggests that it should include only questions that elicit factual information. It should also be short (about three pages long) and use a 4-point scale rather than 5-point one such as the Likert Scale. Kaur's suggestions are good but the researcher feels that it is a matter of individual choice of preference. Various considerations are involved in drawing up a questionnaire.

In this study, the Student Questionnaire (SQ) and the Teacher Questionnaire (TQ) were more than three pages long (8 pages excluding the cover letter) because there were ten aspects under investigation and the questions asked were mostly objective questions (close ended). The pages could only be reduced if the questions asked were changed to subjective type (open ended). In terms of whether to use a 4-point or 5-point scale procedure, it was felt that the 5-point Likert Scale is more suitable for this study simply because we cannot expect the respondents to agree or disagree with all the items asked. There might be some items that they are not very sure of. Hence, the latter is preferred.

The questionnaire is an important tool for data collection. It has a job to do: its function is measurement (Oppenheim, 1966). There are a number of questionnaire methods used for data collection and each has its advantages and disadvantages. Our final choice will depend on its appropriateness to our purpose and to the means at our disposal. Oppenheim (1992) says that the three most common ones are postal, self-administered, and group administered questionnaires. For the purpose of this study, the last two methods are employed.

There are many advantages of using self and group administered questionnaires. Among the advantages of the former include: it is self-explanatory; it is usually presented to the respondents by the evaluator himself; and it ensures a high response rate, accurate sampling and minimum of evaluator bias, while permitting evaluator assessments. The advantages of the latter include: it is also largely self-explanatory; it can be given to groups of respondents assembled together; and the evaluator can get help from others (e.g., teachers) to see to the administration of questionnaires and check for completeness and so on.

The interview, although as popular as the questionnaire, requires interpersonal skills of a high order (e.g., putting the respondent at ease). In short, the ability to conduct a good interview is no easy task. Basically, there are two types of interview: exploratory and standardized (Banaka, 1971). The former include depth interview, free-style interview, and group interview. The latter include public opinion polls, market research and government surveys. The present study employs the exploratory interviews with the purpose of understanding how the respondents think and feel about the course under study. Advantages of interviews include: they have a higher response rate; they offer the opportunity to correct misunderstandings; and they often succeed with respondents who have reading or language difficulties.

In sum, questionnaires and interviews are quite popular and important in research due to the fact that they complement each other in the process of data collection and analysis. By using them together, a lot of information can be gathered to form the basis for discussions and analysis. Therefore, this present study employs the questionnaires and interviews as the main research instruments used to gather data needed to answer the three research questions under investigation.

3.5.1 Development and Description of Questionnaires

Two sets of questionnaires were developed to collect data from the repondents (see Appendices B and D). These two sets of questionnaires formed the main data gathering instruments because they provide maximum and comprehensive information on most or all of the aspects of the course under study. Also, the use of this survey method will ensure that all the samples are given the same type of inquiry so that any problems that arise can be addressed on the spot.

Many types of questionnaire models are available but no one model is perfectly suitable for this study. Therefore, some of the items in Part 2 of the questionnaires were adapted from Chia et al (1999), while a few items were designed based on Schleppegrell and Royster (1990). Also, the questionnaires were developed after taking into consideration the views of experienced educators such as the researcher's supervisor and PUO language teachers. Finally, the questionnaires were designed based on the researcher's knowledge and teaching experience. They were labelled Student Questionnaire (SQ) and Teacher Questionnaire (TQ).

Table 3 : The lay-out of the questionnaires for the SS and TS

PART	SECTION	ITEM	INSTRUCTION	AREA OF INQUIRY	RESEARCH QUESTION ADDRESSED
1		1 - 8	Circling numbers	Background information	2
2	A	9 - 34	Likert Scale procedure	Perception about CE 1	1
2	B	35 - 56	Circling numbers and blank fillings	Suggestion for improvement	3

Table 3 shows clearly the lay-out of the questionnaires for the SS and TS. Both the SQ and the TQ have two parts (see Appendices B and D). Part 1 of the questionnaires relates to the background information of the SS and TS, and contains eight items. It addresses research question two, that is, the CE 1 test results of the student sample. Part two requests for information related to course evaluation. This part is further divided into two sections (see Table 3).

Section A of Part 2 relates to the effectiveness of the course as perceived by the SS and TS (including the strengths and weaknesses of the course). This section addresses research question one, that is, the respondents's perceptions about the nine aspects of the course. Section B requests for suggestions on how to improve the course. It addresses research question three, that is, the respondents's recommendations for improving the nine aspects of the course. There are 26 items in Section A, and 22 items in Section B respectively (see Table 3).

With regard to the methods of answering the questionnaires, all the items in Parts 1 and 2 are to be answered (see Appendices B and D). For items in part one, both the SS and TS have to circle a number according to their respective background information. For example, respondents answering item one have to circle a number according to their respective age (see Appendix B or D).

In Section A of Part 2, respondents have to indicate their views by circling a number according to the five-point Likert Scale procedure. For items 35 to 56 in Section B, the respondents are invited to give their views by circling a number according to the questions asked (items 36- 37, 39, 43-44, 46-47, 49, 51, 54-56). For example, in item 48 they were asked whether teachers should attend further training to improve their teaching methods; they have to indicate their views by circling one of the three options provided, that is, 1 for 'yes'; 2 for 'no'; and 3 for 'not sure' (see Appendix B or D).

For the other items in Section B, they have to indicate their views by putting a tick in the space provided in the questions. For example, in item 52 (see Appendix B or D) the respondents were asked how much time they thought was enough for teaching and learning activities in a week. They had to indicate their views by putting a tick beside one of the three options provided, that is, a) 3 periods ( ); b) 4 periods ( ); and c) 5 periods ( ).

Table 4 shows clearly the breakdown of items in Part 1 of the questionnaires. Here, the number of items are the same for SQ and TQ, but the breakdown of items are slightly different. In Part 2, both the SQ and TQ contain the same number of items and have same items for both Sections A and B (see Table 5 and 6 for breakdown of items in Part 2).

Table 4 : Breakdown of items in Part 1 of the questionnaire

ITEM	SQ	TQ
1	Age	Age
2	SPM grades	Academic qualifications
3	SPM English grades	Professional qualifications
4	GCE English grades	Teaching experience
5	**CE 1 grades**	Experience in teaching the CE 1
6	Course of study	ESP courses attended
7	English usage	Understanding ESP concept
8	ESP and GE difference	Students' proficiency level

Table 5 : Breakdown of items in Section A of Part 2 (for SQ and TQ)

ITEM	AREA OF INVESTIGATION
9 - 12	Students' basic language skill need
13 - 15	General and specific objectives of the course
16 - 19	Syllabus and curriculum
20 - 21	Materials used
22 - 24	Teachers and their methods of teaching
25 - 26	Evaluation system used
27 - 28	Time allocation and time spent
29 - 30	Problems faced by students and teachers
31 - 34	Overall perceptions about the course

As mentioned earlier, the questionnaire items in Section A of Part 2 (see Table 5) are systematically arranged in such a way that they provide the views of respondents regarding the nine aspects of the CE 1 course stated in **research question one**. The last aspect under investigation, that is, the students'overall evaluation results of the course (as stated in **research question two**), is provided in Part 1, item 5 of the SQ (see Table 4). Finally, the questionnaire items in Section B of Part 2 (see Table 6) are also arranged in such a way that they provide suggestions for improvement to the nine aspects of the course stated in **research question three**.

Table 6 : Breakdown of items in Section B of Part 2 (for SQ and TQ)

ITEM	AREA SUGGESTED FOR IMPROVEMENT
35 - 36	Students' basic language skill need
37 - 38	General and specific course objectives
39 - 42	Syllabus and curriculum
43 - 45	Materials used
46 - 48	Teachers and their methods of teaching
49 - 50	Evaluation system used
51 - 52	Time allocation and time spent
53	Problems faced by students and teachers
54 - 56	Overall perceptions about the course

3.5.2 The Interviews

Interviews are conducted in this study to complement the use of questionnaires to collect data. For the purpose of this study, two semi-structured interviews were employed for both the SS and TS. The interview format is similar to the questionnaires except that no question is directed to the background information of the respondents. The questions were carefully selected so that they would complement the data collected through questionnaires, and also provide additional information not available in the latter. They were made up of open and close-ended questions, and were labelled Student Interview (SI) and Teacher Interview (TI) respectively.

Both the SI and TI have two sections (see Table 7). Section A relates to the perceptions of the respondents about the CE 1 course, including their understanding of the concept of ESP. There were five questions asked. Section B seeks the views of the respondents on how to improve the quality of the course. Again, five questions were asked. All these questions were used for both individual and group interviews.

Table 7 : The lay-out of the interviews for the SS and TS

SECTION	ITEM	AREA OF INQUIRY	RESEARCH QUESTION ADDRESSED
A	1 - 5	Perceptions about CE 1 and evaluation results	1 - 2
B	6 - 10	Suggestions for improvement	2 - 3

As shown in Table 7, all the respondents had to answer all the items in both sections. In both sections, the number of items are the same for SI and TI but the questions asked were slightly different. The five questions in each section were not asked one after another but with some flexibility. In other words, for each interview session, the questions asked were the same but not necessarily in the same order (1 to 5, or 6 to 10 as provided in Appendices E and F). The order of the questions depended very much on the situation, and the respondents, and the turn the interviews took.

Due to time and financial constraints, the face-to-face interviews were only conducted with a selected number of respondents. For individual interviews with the students, the ESP teachers teaching the CBS and DBS students respectively were asked to select a total of six students respectively (two above average, two average, and two below average students). For group interviews, the teachers again were asked to select any five students respectively, but they were reminded not to select those who had attended the individual interviews.

Group interviews were conducted to supplement the data gathered through individual interviews.

In the case of teacher interviews, it was originally intended to interview all the seven ESP teacher sample but due to time constraints on the part of the teachers, only five of them managed to be interviewed individually during their free periods. The interviews for both the students and teachers were carried out after the completion of the pilot testing and the final administration of the questionnaires. Student interviews were held between 21-23 March, 2000. Teacher interviews were conducted between 28 - 29 March, 2000.

3.6 Administration of Instruments

This section will discuss in detail the procedures for the administration of instruments. Since the period approved to carry out the research at PUO was between end of February 2000, until the end of March 2000 (see Appendices I and J), the process of administration was carried out during this period (see Table 8). The discussion will start with description of the pilot testing of the questionnaires. Next, the actual administration of the questionnaires will be discussed, and finally the administration of interviews will end the discussion in this section.

Table 8 : The lay-out for the administration of instruments

DATE	PURPOSE
29.02.00 to 02.03.00	Data collection and pilot testing of questionnaires.
07.03.00 to 08.03.00	Administration and collection of questionnaires.
21.03.00 to 23.03.00	Student interviews.
28.03.00 to 29.03.00	Teacher interviews.

3.6.1 The Pilot Study

Before coming up with the final version, both the SQ and TQ were piloted at PUO in early March, 2000. A total of twelve students, six CBS and six DBS students, were asked to complete the questionnaires. These students were also asked to attend the individual interview sessions later. The students were selected by their respective teachers. Each group was made up of two above average, two average, and two below average students. With the help of their language teachers, the students were given the questionnaires during their English lessons. They were asked to complete the questionnaires in a classroom next to theirs. The researcher was with them so that any problems arising could be dealt with. The comments made by these students were taken down immediately. Among the comments made were: they could not understand some of the terms used (e.g., the term 'adequate' in item 27); they could not understand some instructions (e.g., instruction in item 42); and they felt that too many items were asked (see Appendix B or D).

As for the TQ, four out of the seven English teachers selected for this study were also invited to read through the questionnaires during the same period. They were each given a copy of the questionnaire during their free periods. Among the comments made were: some items were ambiguous or not so suitable for them. For example, items 28 and 29 were more suitable for the students. They said that it was difficult to rank all the ten specific objectives asked in item 38. They preferred to rank only the most important and least important objectives. They also felt that there were too many items asked.

The comments made by the respondents above were analyzed after the pilot study. Some items were reviewed, for example, the term 'adequate' in item 27 was changed because some students did not understand the meaning of that term. Some items were re-phrased, for example, the questions in items 35, 40 and 41 were re-phrased to make them more specific. The instructions for some items were re-phrased, for example, the instructions given in item 42 was ambiguous and was re-phrased to make it clearer. The options for some items were also re-phrased, for example, options for items 50 and 52 were re-phrased to suit the views of the students and teachers. Finally, some items which were not very relevant were removed so that the total number of questions asked was reduced from 63 to 56.

The pilot study was useful in providing the necessary feedback regarding the suitability of items and language used in the questionnaires. The researcher was of the view that a cover letter should be included to provide a clear explanation with regard to the purpose of the study. In addition, before the final version was drawn up, the views given by the researcher's supervisor were also taken into consideration.

3.6.2 Administration of the Questionnaires

Both the SQ and TQ were administered in early March, 2000. A cover letter was also attached to in each questionnaire to explain the purpose of the study and to get the full co-operation of the respondents. Since the TS was not a big group (only seven), the TQ was administered personally by the researcher in the staffroom. They were given the questionnaires to complete during their free periods. They took about half an hour to complete the questionnaires. Some of them requested for more time and wanted to complete them at home. They were given one day to do so.

As for the SS, the SQs were distributed to them during their English lessons. With the help of their respective teachers, the questionnaires were distributed to all twenty six DBS students and thirty seven out of the forty one CBS students. Four CBS students were absent on that day. Since the two groups of SS were attending their English lessons at the same time and their classrooms were next to each other, the researcher explained and clarified any problems raised by both groups in turn. Some minor problems were raised by the respondents, such as the meanings of certain words and whether to use a pen or pencil and so on. On the whole, the DBS students spent about thirty minutes while the CBS students took about forty minutes to complete the questionnaires.

3.6.3 Conducting the Interviews

As shown in Table 8, the interview sessions were conducted after the pilot testing and the actual administration of the questionnaires. For the student interviews, a total of twelve students were first interviewed individually. The twelve students were the same students involved in the pilot testing of questionnaires held earlier. They were chosen again with the hope that they would not feel afraid to attend the interviews because they had seen and spoken to the researcher during the pilot study of the questionnaires held earlier. With the help of their respective teachers, they were interviewed during their English lessons in a vacant classroom next to theirs. Individual student interviews were held for two days. Each interview session lasted about twenty minutes.

As mentioned earlier, group interviews were also carried out during the third day of interviews. Another five CBS and five DBS students were interviewed in turn, with the hope that they would feel free to express their views in the presence of their peers. These students were also selected by their respective teachers and were made up of good, average, and weak students. The group interviews were deemed necessary because not much information was collected from certain students involved in the individual interviews. This may be due to shyness or lack of competence in using English to speak to the researcher. Each of the group interview sessions lasted about thirty minutes.

The teacher interviews were held after the completion of the student interviews. The interviews were conducted in the staffroom and were completed in two days. A total of five teachers were interviewed during their free periods. Each interview session lasted about thirty minutes due to time constraints on the part of the teachers. Important points made by the teachers were recorded in written form, to be used for analysis in the next chapter.

3.7 Data Collection Procedures

For the purpose of carrying out this study, a number of steps were taken according to the framework of study suggested. First, permission was sought from the Planning and Research Division of the Ministry of Education to conduct a research at PUO. After obtaining the approval letter from this division on 29 January, 2000 (see Appendix I), application for permission was then put forward to the Technical Education Department of the Ministry of Education. A copy of the letter was also sent to the principal of PUO (see Appendix H). On 23 February, 2000, the department approved the application to conduct research from the end of February to the end of March, 2000 (see Appendix J).

A schedule of work was drawn up for the purpose of carrying out the pilot testing of the questionnaires, the actual administration of the questionnaires, and the interview sessions within the stipulated time-frame approved by the ministry (see Table 8). The first visit to PUO was between 29 February and 2 March, 2000. Not much data was collected on the first day at PUO because everyone was busy preparing for the launching of the MS ISO 9002 programme on 1 March, 2000. Permission was sought from the Principal of PUO to collect data and to conduct research at PUO. The pilot testing of the questionnaires was carried out on 1 March and 2 March, 2000.

The final versions of the questionnaires were drawn up after the pilot testing was completed. They were administered during the second visit to PUO between 7 March and 8 March, 2000. The TQ were administered to all seven TS in the staffroom. They were invited to complete the TQ during their free periods but some of them wanted to complete the TQ at home. Their questionnaires were collected on the following day.

As for the SQ, they were administered to all the SS who were present during their English lessons on 7 March, 2000. Both the CBS and DBS students were having their English lessons at the same time and their classes were next to each other. A total of sixty three students were given the questionnaires and they spent about thirty to forty five minutes to complete them. Four CBS students were absent on that day. The researcher spent about twenty minutes in each class to answer any questions raised by the students. Prior to the administration of the SQ, verbal approval was given by the Head of Commerce Department to administer the questionnaires during the English lessons.

The third visit was between 21 March to 23 March, 2000. During this period, a total of twelve students (6 CBS and 6 DBS students) were interviewed individually during their English lessons. In addition, another five CBS and five DBS students were interviewed in the form of group interviews. As mentioned earlier, group interviews were conducted because some students interviewed individually were conservative in expressing their opinions, perhaps due to shyness or lack of competence in spoken English. It was hoped that group interviews could supplement the data collected through individual interviews.

Arrangement was made during the third visit to conduct interview sessions with the English teachers. The final visit to PUO was made on 28 March and 29 March, 2000. During this period, a total of five English language teachers were interviewed individually during their free periods. As mentioned earlier, it was not an easy task to interview them because of time constraints on the part of the teachers. That was why it took two days just to interview only five teachers.

3.8 Data Analysis

In this study, data was collected through questionnaires and interviews. Data gathered from the questionnaires was analyzed using the frequency counts method and converted into percentages. Frequency counts is a suitable method here since most of the questions required only objective responses. And since the total number of respondents is not very big (seventy all together), there is no need to employ the SPSS statistical procedure. Other statistical tools such as mean score, standard deviation or T-tests are not employed here because the three research questions do not warrant such procedures. The use of tables and charts are good enough to provide a simple and clear explanation of the results. The inclusion of too many complex statistical analysis will defeat this purpose.

Consistent with the objectives of this study and the research questions mentioned in Chapter One, the data in the questionnaires will be analyzed according to background information of respondents (Part 1), perceptions about the course (Part 2, Section A), and suggestions for improvement (Part 2, Section B). Data from the background information of respondents will be analyzed and also used to relate to analysis of data in Part 2 of the questionnaires. For example, the greater difficulties faced by the CBS students in following the CE 1 course compared with the DBS students (if the results confirm this), will be related to their SPM English grades and and their results obtained for the CE 1 course. Items in Sections A and B of Part 2 of the questionnaires will be analyzed according to the nine aspects of investigation stated in research questions one and three. Tables will be used in analyzing items in Sections A and B to provide a clearer picture of analysis. Charts will also be used to highlight the performance of the SS in the CE 1 course (item 5 of the SQ).

Data collected from the close and open-ended questions in the interviews will be interpreted in a descriptive manner. Since the responses are mostly subjective and varied according to individual's point of view, they are more difficult to analyse. The best way is to summarise and compare them. The analysis of data here will follow the questionnaire format. That means the data will also be interpreted according to perceptions about the CE 1 course (which include perceptions about English and ESP), and recommendations for improvement.

3.9 Conclusion

The discussion of the research design and methodology in this chapter has provided detailed information regarding the major aspects of this study such as the conceptual framework, the evaluation criteria, the subjects, the research instruments, data collection procedures, and data analysis. In particular, the researcher has called for the development of a conceptual framework to ensure a smooth implementation of the whole evaluation exercise. It is felt that the simple framework developed in this study can also be used as a guide for other researchers to conduct similar studies in other institutions of higher learning in Malaysia.

In carrying out a research such as this, it is quite common for any researcher to encounter the problem of determining the most appropriate research design and methodology to be used. The present study is no exception.

It was with great determination that all the problems were finally solved. It is hoped that the discussion here has given a clear picture of how this study was carried out. In Chapter Four, the data gathered through questionnaires and interviews will be analyzed and presented with the help of tables and charts.